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SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS
12/98

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the sponsoring organization, e.g. UL 1 (1993; Rev thru Jan 1995) Flexible Metal Conduit. However, when the sponsoring organization has not assigned a number to a document, an identifying number has been assigned for convenience, e.g. UL's unnumbered 1995 edition of their Building Materials Directory is identified as UL-01 (1995) Building Materials Directory. The sponsoring organization number (UL 1) can be distinguished from an assigned identifying number (UL-01) by the lack of a dash mark (-) in the sponsoring organization assigned number.

1.2 ORDERING INFORMATION

The addresses of the organizations whose publications are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the sponsoring organization should be ordered from the source by title rather than by number.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Ph: 610-832-9500
Fax: 610-832-9555
Internet: www.astm.org
NOTE: The annual ASTM Book of Standards (66 Vol) is available for $3500.00. Prices of individual standards vary.

CODE OF FEDERAL REGULATIONS (CFR)

Order from:
Government Printing Office
Washington, DC 20402
Ph: 202-512-1800
Fax: 202-275-7703
Internet: http://www.pls.com:8001/his/cfr.html

CORPS OF ENGINEERS (COE)

Order from:
U.S. Army Engineer Engineering Research and Design Center
ATTN: Technical Report Distribution Section, Services Branch, TIC
3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2571
Fax: 601-634-2506

DEPARTMENT OF COMMERCE (DOC)

Order From:
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Ph: 703-487-4600
Fax: 703-321-8547
Internet: http://www.ntis.gov

ENGINEERING MANUALS (EM)

USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081

ENGINEERING PAMPHLETS (EP)

USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081

ENGINEERING REGULATIONS (ER)

USACE Publications Depot
Attn: CEIM-SP-D 2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081

FEDERAL SPECIFICATIONS (FS)

Order from:
General Services Administration
Federal Supply Service Bureau
470 L'Enfant Plaza, S.W.
Washington, DC 20407
Ph: 202-619-8925
Fax: 202-619-8978
Internet: http://pub.fss.gsa.gov/

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

Department of Commerce
Gaithersburg, MD 20899-0001
Ph: 301-975-4025
Fax: 301-926-1630
Order Publications From:
Superintendent of Documents
U.S. Government Printing Office (GPO)
Washington, DC 20402
Ph: 202-512-1800
Fax: 202-512-2250
or
National Technical Information Services (NTIS)
5285 Port Royal Rd.
Springfield, VA 22161
Ph: 800-553-6847
Fax: 703-321-8547
Internet: http://ww.gov/ntis.gov

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 01200

GENERAL REQUIREMENTS
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PART 1 GENERAL

1.1 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

CODE OF FEDERAL REGULATIONS (CFR)

CFR 29	Part 1926	Safety and Health Regulations for Construction
CFR 33	Part 80	Colregs Demarcation Lines
CFR 33	Part 156	Oil and Hazardous Material Transfer Operations

CORPS OF ENGINEERS (COE)

EM 385-1-1	(1996) Safety and Health Requirements Manual
ER 415-1-5-89	Construction Time Extensions for Weather

DEPARTMENT OF COMMERCE (DOC)

DOC PS 1	(1983) Construction and Industrial Plywood
DOC PS 20-70	American Softwood Lumber Standard

FEDERAL SPECIFICATIONS (FS)

FS FF-B-575	(Rev C) Bolts, Hexagon and Square
FS FF-N-105	(Rev B; Int Am 4) Nails, Brads, Staples and Spikes: Wire, Cut and Wrought
FS FF-N-836	(Rev D; Am 2) Nut: Square, Hexagon,Cap, Slotted, Castle, Knurled, Welding and Single Ball Seat
FS TT-E-529	(Rev D) Enamel, Alkyd, Semi-Gloss
FS TT-P-25	(Rev E; Am 2) Primer Coating, Exterior (Undercoat for Wood, Ready-Mixed, White and Tints)

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Work and Storage Areas Plan; GA

SD-08 Statements

Site Safety Health Plan; GA

Job Hazards Safety Analysis; GA

1.3 PROJECT SIGNS AND BULLETIN BOARDS

1.3.1 General

The Contractor shall construct and erect a project sign and hard hat sign and a bulletin board at respective locations designated by the Contracting Officer. The signs shall conform to the requirements of the drawings attached at the end of this section. Signs shall be erected as soon as possible and within 5 days after commencement of work under this contract.

1.3.2 Construction Signs

1.3.2.1 Materials.
Lumber shall conform to DOC PS 20-70, and shall be seasoned Douglas Fir, S4S, Grade D or better except that posts, braces and spacers shall be construction Grade (WCLB).

Plywood shall conform to DOC PS 1, grade AC, Group 1, Exterior.

Bolts, Nuts and Nails. Bolts and nuts shall be galvanized conform to FS FF-B-575 and FS FF-N-836. Nails shall conform to FS FF-N-105.

Paints and Oils. Paints shall conform to FS TT-P-25 for primer and FS TT-E-529 for finish paint and lettering.

1.3.2.2 Execution.
The following signs shall be erected:

Project Sign at location designated by the Contracting Officer.

Warning Signs facing approaching traffic on all haul roads crossing under overhead power transmission lines.

Two (2) hard hat signs at locations directed.

Four (4) beach disposal signs at locations directed.

Project and hard hat signs shall be constructed as detailed in Figures 1, 2, and 3. Decals for hard hat signs will be furnished by the Contracting Officer.

Warning Signs shall be constructed of plywood not less than 12mm thick and shall be securely bolted to the supports with the bottom of the sign face 900 mm above the ground. The sign face shall be 600 X 1200 mm , all letters shall be 100 mm in height. Haul road signs shall depict the wording: "WARNING: OVERHEAD TRANSMISSION LINES". Beach disposal signs shall depict the wording: "DANGER - KEEP OUT, BEACH CLOSED, U.S. ARMY CORPS OF ENGINEERS BEACH NOURISHMENT PROJECT".

All exposed surfaces and edges of plywood shall be given one coat of linseed oil and be wiped prior to applying primer. All exposed surfaces of signs and supports shall be given one coat of primer and 2 finish coats of white paint. Except as otherwise indicated, lettering on all signs shall be black and sized as indicated.

1.3.3 Bulletin Board at the Contractor's office

A weatherproof bulletin board, approximately 900 mm wide and 760 mm high, with hinged glass door shall be provided adjacent to or mounted on the Contractor's project office. If adjacent to the office, the bulletin board shall be securely mounted on no less than 2 posts. Bulletin board and posts shall be painted or have other approved factory finish. The bulletin board shall be easily accessible at all times and shall contain wage rates, equal opportunity notice, and such other items required to be posted.

1.3.4 Maintenance and Disposal

The Contractor shall maintain the signs in good condition throughout the life of the project. Signs shall remain the property of the Contractor and upon completion of the project they shall be removed from the site.

1.4 GOVERNMENT FIELD OFFICE

The Contractor shall provide as a minimum, a separate room in the Contractor's project trailer/office for the Contracting Officer's Representative. The room shall be accessed by an outside door (locked) separate from the Contractor's entry door. The space shall not be less than 3 meters wide by 4.5 meters long, and shall contain the following:

* suitable desk and minimum 2 chairs
* 1 telephone
* independent service for telephone and modem
* 1 file cabinet, minimum 3 drawer, legal, lockable
* access to a copy machine
* access to a FAX machine
* electric light and power
* heater and air conditioning
* toilet facilities consisting of one lavatory and one water closet complete with connections to water (hot and cold) and sewer mains.

A mail slot in the door or a lockable mail box mounted on the surface of the door shall be provided. At completion of the project, the office shall remain the property of the Contractor and shall be removed from the site. Utilities shall be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer.

1.5 PUBLIC UTILITIES

1.5.1 General

The approximate location of all pipelines, sewer lines, and other utilities known to exist within the limits of the work are indicated on the drawings. The sizes, locations, and names of owners of such utilities are given from available information, but their accuracy is not guaranteed. Except as otherwise indicated on the drawings, all existing utilities will be left in place and the Contractor shall conduct his operations in such a manner that the utilities will be protected from damage at all times, or arrangements shall be made by the Contractor for their relocation at the Contractor's own expense. The Contractor shall be responsible for any damage to utilities known to exist and shall reimburse the owners for such damage caused by his operations.

1.5.2 Utilities To be Relocated or Protected

The Contractor shall notify the Contracting Officer, in writing, 14 calendar days prior to starting work on any utility to be relocated or protected. On each relocation, notification shall include dates on which the Contractor plans excavation, by-pass work, removal work and/or installation work, as applicable.

1.5.3 Relocation or Removal

Utilities to be relocated or removed not as part of this contract are designated "To be Relocated by Others" or "To be Removed by Others," respectively. Utilities shown on the plans and not so designated shall be left in place and will be subject to the provisions of the paragraph entitled "Protection of Existing Vegetation, Structures, Utilities, and Improvements" of Section 00700 CONTRACT CLAUSES. The Contractor without cost to the Government, may make arrangements with the owner for the temporary relocation and restoration of utilities not designated to be relocated, or for additional work in excess of the work needed to relocate utilities designated for relocation.

1.5.4 Coordination

The Contractor shall consult and cooperate with the owner of utilities that are to be relocated or removed by others to establish a mutual performance schedule and to enable coordination of such work with the construction work. These consultations shall be held as soon as possible after award of the contract or sufficiently in advance of anticipated interference with construction operations to provide required time for the removal or relocation of affected utilities.

1.5.5 Utilities Not Shown

If the Contractor encounters, within the construction limits of the entire project, utilities not shown on the plans and not visible as of the date of this contract and if such utilities will interfere with construction operations, he shall immediately notify the Contracting Officer in writing to enable a determination by the Contracting Officer as to the necessity for removal or relocation. If such utilities are left in place, removed or relocated, as directed by the Contracting Officer, the Contractor shall be entitled to an equitable adjustment for any additional work or delay.

1.5.6 Electric Current

All electric current required by the Contractor shall be furnished at his expense. All temporary lines shall be furnished, installed, connected, and maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer Representative and shall be removed by the Contractor in a like manner at his expense prior to final acceptance of the construction.

1.6 NOTICES

Copies of letters or notifications made to utility companies, U.S. Coast Guard, Harbor District, County, etc. shall be provided to the Contracting Officer.

1.6.1 Oceanside Harbor

The Contractor shall notify the Contracting Officer, the Oceanside Harbor District, and Marine Corps(Camp Pendleton) Public Works at least 2 weeks in advance of commencement of each cycle's dredge operation. The following information shall be provided:

a. Size and type of construction equipment performing work in the project area, including any equipment to be working on the beach.

b. 24-hour telephone numbers of the project engineer, superintendent, and foreman.

c. Schedule for completion of project.

Oceanside Harbor District
1540 Harbor Drive N. tel (760) 435-4000
Oceanside, CA 92054 fax (760) 439-3058

1.6.2 Traffic Routing

The Contractor shall notify the Contracting Officer Representative 7 days in advance of the time work will be started in areas requiring the rerouting of traffic, traffic lane striping, or removal of street signs. The foregoing shall apply to progressive modifications of traffic routing within an area in which work is in progress.

1.6.3 Existing Bench Marks and R/W Markers

The Contractor shall notify the Contracting Officer, in writing, 7 days in advance of the time he proposes to remove any bench mark or right-of-way marker.

1.6.4 United States Coast Guard

The Contractor shall notify the Commander Eleventh Coast Guard District, and the Coast Guard Marine Safety Office - San Diego not less than 14 calendar days prior to commencing work for each dredge cycle. The notifications (either letter or fax) shall include as a minimum the following information:

a. Project description and location including latitude/longitude (NAD 83).

b. The size and type of any floating construction equipment to be used.

c. Name and radio call signs for working vessels.

d. Telephone number for 24-hour on-site contact and name and phone number of Project Engineer.

e. The schedule for completing the project.

f. Potential hazards to navigation.

Mail address:

Commander (POW)
Eleventh Coast Guard District
Building 50-6
Coast Guard Island
Alameda, CA 94501-5100
ATTN: Local Notice to Mariners
TEL: (510)437-2976 FAX: (510)437-2961

U.S. Coast Guard
Marine Safety Office
2716 N. Harbor Drive
San Diego, CA 92101
Attn: Commander Farley
Phone # (619) 683-6500
Fax # (619) 683-6504

1.6.5 Discharge Pipeline

If a discharge pipeline is used, the Contractor shall notify the City of Oceanside of the proposed location of the discharge pipeline not less than ten (10) working days in advance of placing the discharge pipeline. P.O.C. for the City of Oceanside is Mr. Ray Duncan, Lifeguard Manager.

1.7 POINTS OF CONTACT

The following is a list of points of contact:

Company or Agency	Contact	Telephone
U.S. Army Corps of Engineers		
Resident Engineer	Dan Moore	(909) 981-5571
Project Engineer	Reggie Hammond	(858) 674-6765
Construction Representative	Randy Lee	(858) 674-6765
City of Oceanside - Dept. of Harbor & Beaches		
Maintenance Manager	Frank Quan	(760) 435-4032
Lifeguard Manager	Ray Duncan	(760) 435-4014
Harbor Patrol	Sgt. Dan Polder	(760) 435-4050
Camp Pendleton Public Works	Laquetta Montgomery	(760) 725-6398
Del Mar Boat Basin - Harbor Master	Ray Moon	(760) 725-7245
U.S. Coast Guard		
Local Notice to Mariners	QM1 Carlson	(510) 437-2976
Aids-to-Navigation	LT j.g. Matt ten Barge	(510) 437-2969
Marine Safety Office - San Diego	CDR Farley	(619) 683-6500

1.8 AIDS TO NAVIGATION

The Contractor shall not remove, relocate, obstruct, willfully damage, make fast to, or interfere with any aids to navigation. The Contractor shall notify the Eleventh Coast Guard District in writing with a copy to the Contracting Officer not less than 30 calendar days in advance of the time he plans to operate any equipment adjacent to any aids to navigation which requires relocation or removal.

1.9 DREDGING AIDS

The Contractor shall coordinate with the Harbor Patrol prior to placing any buoy or other aid marker in the water. Buoys and other dredging aid markers shall be equipped with the necessary lights and the Contractor shall insure that all lights are in proper working order prior to installation. Buoys and dredging aids markers shall be maintained throughout the length of the dredging operation and shall not be colored, marked, or placed in a manner that will obstruct or be confused with other navigational aids. The Contractor's buoys and aid markers shall conform to U.S. Coast Guard regulations.

1.10 RESTRICTIONS

1.10.1 Dredging of Del Mar Channel

The portion of Del Mar Channel located between stations 0+680 and 1+600 consists of material that may contain more than 20% fines. When dredging between stations 0+680 and 1+600 of the Del Mar Channel, the Contractor

shall dispose of material either at the nearshore disposal site, or directly into the surf zone at the beach disposal site.

1.10.2 Pipeline and Power Line Crossings

a. General. Should submerged discharge pipelines cause shoaling in the navigation channel, the Contractor shall remove such shoals and restore to the depths required by the contract and/or as existed prior to the laying of the submerged pipe. Materials so removed shall be disposed of in a manner approved by the Contracting Officer. No separate payment will be made for the removal of such shoals and all costs thereof shall be included in the contract price.

b. Channel Crossings. Where the Contractor's discharge pipe and any required power lines cross navigation channels, the top of the pipe and power lines shall be submerged and maintained to a minimum depth of -4.6 meters (MLLW) to provide an unrestricted navigation over the pipe and power lines for a distance of not less than 90 meters normal to the channel alignment. The Contractor shall provide anchors or weights to prevent the submerged pipeline and lines from floating. The Contractor shall remove the anchor or weights after completion of dredging operations.

c. River Crossings. The Contractor shall coordinate the discharge pipe location across the San Luis Rey River with the Contracting Officer prior to placement. In the event that flow out of the San Luis Rey River threatens the pipe, the Contractor shall remove or sufficiently anchor endangered portions of the pipe to prevent damage.
The Contractor shall not cause any blockage at the mouth of the San Luis Rey River that would interfere with the normal tidal flow or the normal flow characteristics of the river.

1.10.3 Disposal

a. Discharge Pipeline. The discharge pipeline, if used, shall be buried along Harbor Beach (between the south jetty and the San Luis Rey River groin) and along the beach area between the North Coast Village Condominiums and the Oceanside Pier.

(1) For noise reduction purposes, the pipe in front of the North Coast Village Condominiums shall be covered with a minimum of 0.5 meters of sand. Other restrictions may be designated on the plans. After emerging onto the beach south of Oceanside Pier, the discharge pipeline shall be placed within a 6-meter wide corridor as approved by the Contracting Officer and in accordance with the restrictions of this section. All dredge disposal activities will occur south of the Oceanside Public Pier. The location of the discharge lines shall be subject to approval by the Contracting Officer prior to the installation of the discharge lines. The Contractor shall notify the Contracting Officer, in writing, not less than 10 calendar days in advance of the time the discharge pipeline will be placed and shall also notify the City of Oceanside as required per paragraph: Notices.

(2) The Contractor may temporarily close portions of the City beach as required to safely lay discharge pipeline and to place and grade the dredged material. These closures shall be kept to a minimum. The

Contractor shall be responsible for providing and placing all necessary signs, barricades, and safety devices. The Contractor shall coordinate beach closings with the Contracting Officer and the City of Oceanside Lifeguard Manager.

b. Beach Access Ramp. Where the discharge pipeline is laid on the beach surface, the Contractor shall provide access ramps over the discharge pipeline at not more than 100-meter intervals to provide access for emergency vehicles to the beach, unless otherwise authorized or directed by the Contracting Officer. The ramps shall not be less than 4 meters wide and shall be constructed with material from the adjacent area. Maintenance and protection of the discharge pipeline and ramps shall be the responsibility of the Contractor. The discharge pipeline shall be free from holes, and joints shall be watertight outside the designated limits of the disposal area.

1.10.4 Construction Vehicles

a. The Contractor shall secure variances to City of Oceanside ordinances for vehicular access to the beach. All Contractor's vehicles granted a variance shall display necessary permit at all times.

b. Any access from improved roads onto the beach shall be coordinated with the Oceanside Lifeguard Manager, Mr. Ray Duncan.

1.10.5 Obstruction of Channel

The Government will not undertake to keep the harbor entrance or navigation channels free from vessels or other obstructions. The Contractor shall be required to conduct the work in such a manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon the completion of the work, the Contractor shall promptly remove his plant, including ranges, temporary buoys, and piles and other marks placed by him under the contract in navigable waters or on shore.

All underwater and above surface hazards to navigation associated with this work shall be marked with a white light of at least 40 candella.

1.10.6 Booster Pump

A booster unit, if required, shall be located in the Harbor Beach area, north of the bypass pumphouse, which is located in the vicinity of the Contractor's field office area. The booster pump shall be mounted on rubber to reduce vibration, be equipped with sufficient muffler system to reduce both the noise and odor, and the blower shall be vented toward the ocean to minimize the noise level. The booster unit shall be fully enclosed, to a height not less than 2 meters, with a bamboo or grape stake chainlink fence.

1.10.7 Method of Dredging

This contract is suitable for the following methods of dredging: hydraulic pipeline (cutter head), hopper dredge, and clamshell-barge. The Contractor shall comply with all applicable Federal, State, County, and municipal laws, regulations, and permits governing the work.

1.11 MARINE PLANT

a. All marine plant and equipment which are required by federal regulations to be inspected by the United States Coast Guard, shall have valid certifications. No marine plant or equipment requiring Coast Guard inspection shall be put into use on the job without the required certification issued by the U.S. Coast Guard Officer in Charge of Marine Inspections.

b. All marine construction equipment shall monitor appropriate VHF marine safety radio channels.

c. Fuel transfer operations shall conform to U.S. Coast Guard design regulations, CFR 33 Part 156.

1.12 PUBLIC SAFETY

Attention is invited to the CONTRACT CLAUSE: PERMITS AND RESPONSIBILITIES. The Contractor shall provide temporary fencing, barricades, and/or guards, as required, to provide protection in the interest of public safety. Whenever the Contractor's operations create a condition hazardous to the public, he shall furnish at his own expense and without cost to the Government, such flagmen and guards as are necessary to give adequate warning to the public of any dangerous conditions to be encountered and he shall furnish, erect, or maintain such fences, barricades, lights, signs and other devices as are necessary to prevent accidents and avoid damage or injury to the public. Flagmen and guards, while on duty and assigned to give warning and safety devices shall conform to applicable city, county, and state requirements. Should the Contractor appear to be neglectful or negligent in furnishing adequate warning and protection measures, the Contracting Officer may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed by the Contractor without additional cost to the Government. Should the Contracting Officer point out the inadequacy of warning and protective measures, such action of the Contracting Officer shall not relieve the Contractor from any responsibility for public safety or abrogate his obligation to furnish and pay for those devices. The installation of any general illumination shall not relieve the Contractor of his responsibility for furnishing and maintaining any protective facility.

The Contractor shall furnish flagmen, watchmen, or other security personnel to control traffic and protect pedestrians in the vicinity of the discharge pipe at all times while discharging material in the disposal area.

1.13 GENERAL SAFETY REQUIREMENTS

1.13.1 General

The Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, (see CONTRACT CLAUSES: SECTION 00700, ACCIDENT PREVENTION) and the Occupational Safety and Health Act (OSHA) Standards for Construction (Title 29, Code of Federal Regulations Part 1926 as revised from time to time) are both applicable to this contract. In case of conflict, the most stringent requirement of the two standards is applicable. Pursuant to EM 385-1-1, the Contractor shall submit a Site Safety Health Plan.

1.13.2 Job Hazard Analysis

Based on the construction schedule, the Contractor shall submit a Job Hazards Safety Analysis of each major phase of work prior to entering that phase of activity. The analysis shall include major or high risk hazards, as well as commonly recurring deficiencies that might possibly be encountered for that operation, and shall identify proposed methods and techniques of accomplishing each phase in a safe manner. The Prime Contractor's superintendent shall take active participation in the Job Hazard Analysis, including the subcontractors' work. Prior to start of actual work a meeting shall be held with Prime Contractor, Government, and affected subcontractor to review the Job Hazard Analysis. In addition, job site meetings shall be held to indoctrinate foreman and workers on details of this analysis.

1.14 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard, governing lights and day signals to be displayed by towing vessels with tows, on which no signals can be displayed, vessels working on dredges, jetties, submarine or bank protection operations, lights to be displayed on dredge pipelines, and day signals to be displayed by vessels of more than 20 meters in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as approved by the Secretary of the Army (33 C.F.R. 201.1-201.16) and the Commandant U.S. Coast Guard (33 C.F.R. 80.18-80.31a and 33 C.F.R. 95.51-95.70). All Contractor's anchor buoys, floating line, and plant shall be marked with flashing beacon lights after dark. Obstructions and hazards to navigation mentioned above shall be painted for visibility during daylight hours.

1.15 RADIO COMMUNICATION

To facilitate and insure the safe passage of vessels in the channel, the Contractor shall provide, operate and maintain on his plant, radio facilities capable of voice communication with vessels using the channel. Station licensing and frequency authorizations shall be the responsibility of the Contractor.

1.16 PERMITS

Reference is made to the clause of the contract entitled: PERMITS AND RESPONSIBILITIES, which obligate the Contractor to obtain all required licenses and permits.

1.17 REPAIR OF STREETS, ACCESS ROADS, AND WORK AREAS

The Contractor shall restore streets, sidewalks, parking lots, and access roads (used for haul routes and mobilizing equipment) and work areas to original condition upon completion of the work for each dredge cycle. Contractor shall restore to the City of Oceanside standards.

1.18 INSPECTION

Reference is made to the clause of the contract entitled: INSPECTI0N OF CONSTRUCTION. In addition, the Contractor will be required:

a. To furnish, on the request of the Contracting Officer or any inspector, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the plant as may be reasonably necessary in inspecting and supervising the work.

b. To furnish, on the request of the Contracting Officer or any inspector, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and to and from the work areas. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor.

c. To allow authorized representatives of the California Regional Water Quality Control Board and the San Diego County Air Pollution Control District to: enter upon the Contractor's premises where a regulated facility or activity is located or conducted, or where records are kept; have access to and copy, at reasonable times, any records that must be kept per agency requirements; inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated by these agencies; and sample or monitor at reasonable times any substances or parameters at any location for the purpose of assuring compliance with agency regulations.

1.19 NAVIGATION

The Contractor's operations shall conform to the U.S. Coast Guard publication "Navigation Rules, International-Inland, INST M16672.28" latest edition.

1.20 WORK AREAS AND EASEMENTS

The Contractor shall submit a Work and Storage Areas Plan for approval within 15 days after receipt of Notice to Proceed. The Contractor's work areas and temporary construction easements are as indicated, subject to approval of the Contracting Officer. The Contractor's work area(s) shall be fenced according to the instruction of the Contracting Officer. Upon completion of the work, the fence materials shall become the property of the Contractor and shall be removed from the site.

Any damage to electrical underground installations, light poles, pavement, fence, shrubs or other facilities within the Contractor's work area shall be repaired or replaced by and at the expense of the Contractor.

The Contractor shall mark the shoreward limits of the construction easement by means of suitable marker buoys. The remaining portion of the navigation channel shall not be obstructed and shall remain open to traffic. Areas within the construction easement not being used by the Contractor for construction shall be made available for anchorage, however, moorings within the easement will be moved by others within 5 days after written notice by the Contractor to the Contracting Officer.

1.21 CORPS OF ENGINEERS RESERVE FLEET (CERF) IMPLEMENTATION

If the work specified in this contract is performed by a hopper dredge(s), the owner must have an active Basic Ordering Agreement (BOA) for the hopper dredge(s) on file with the Corps. The Contractor shall be obligated to make the hopper dredge(s) available to serve in the Corps of Engineers Reserve Fleet (CERF) at any time that the hopper dredge(s) is performing work under this contract. When the Contracting Officer is notified of the decision to activate this dredge(s) into the CERF, he shall take appropriate action to release the dredge(s). He may then extend or terminate the contract to implement whichever action is in the best interest of the Government. The CERF Contractor shall also be subject to the following conditions:

a. The Director of Civil Works may require the Contractor to perform emergency dredging at another CONUS (48 contiguous states) site for a period of time equal to the remaining time under this contract at the date of notification plus up to ninety (90) days at the previously negotiated rate which appears on the schedule of prices in the BOA.

b. The Chief of Engineers may require the Contractor to perform emergency dredging at an OCONUS (Outside CONUS which includes Alaska, Hawaii, Puerto Rico, the Virgin Islands, or U.S. Trust Territories) site for a period of time equal to the time remaining under this contract at the date of notification plus up to one hundred eighty (180) days at the negotiated rate which appears on the schedule of prices in the BOA.

c. The CERF shall be activated by the Chief of Engineers or the Director of Civil Works; then the Ordering Contracting Officer will notify the Contractor. From the time of notification, the selected

hopper dredge(s) must depart for the emergency assignment within seventy-two (72) hours for CONUS or ten (10) days for OCONUS assignments.

d. A confirming delivery order will be issued pursuant to the Basic Ordering Agreement (BOA) by the Ordering Contracting Officer. Such delivery order shall utilize the schedule of rates in the BOA for the specific hopper dredge(s).

e. If during the time period specified in the paragraphs above, a CERF vessel(s) is still required, the contract performance may be continued for additional time by mutual agreement.

1.22 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSES: SECTION 00700, entitled DEFAULT (FIXED PRICE CONSTRUCTION). In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

a. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

b. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

The following schedule of monthly anticipated adverse weather delays is based on Coastal Data Information Program (CDIP) wave data collected from the Oceanside array for the years 1976 to 1991 and will constitute the base line for monthly weather time evaluations. Significant wave height exceeding one (1) meter will constitute adverse weather conditions. The Contractor's progress schedule must reflect the following schedule of anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DAYS
Work Days Based on Five (5) Day Work Week

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
6	5	6	4	4	4	2	2	2	3	4	4

c. Upon acknowledgment of the Notice to Proceed and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual

adverse weather delay days exceeds the number of days anticipated in paragraph b, the Contracting Officer will convert any qualifying days to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the Contract Clause entitled: DEFAULT (FIXED PRICE CONSTRUCTION).

1.23 CONTRACTOR MOORING AREA

Temporary emergency mooring space for the dredge will be available inside Del Mar Boat Basin. The Contractor shall be responsible for coordinating with the Marine Corps representative for mooring location. P.O.C. is Laquetta Montgomery of Camp Pendleton Public Works.

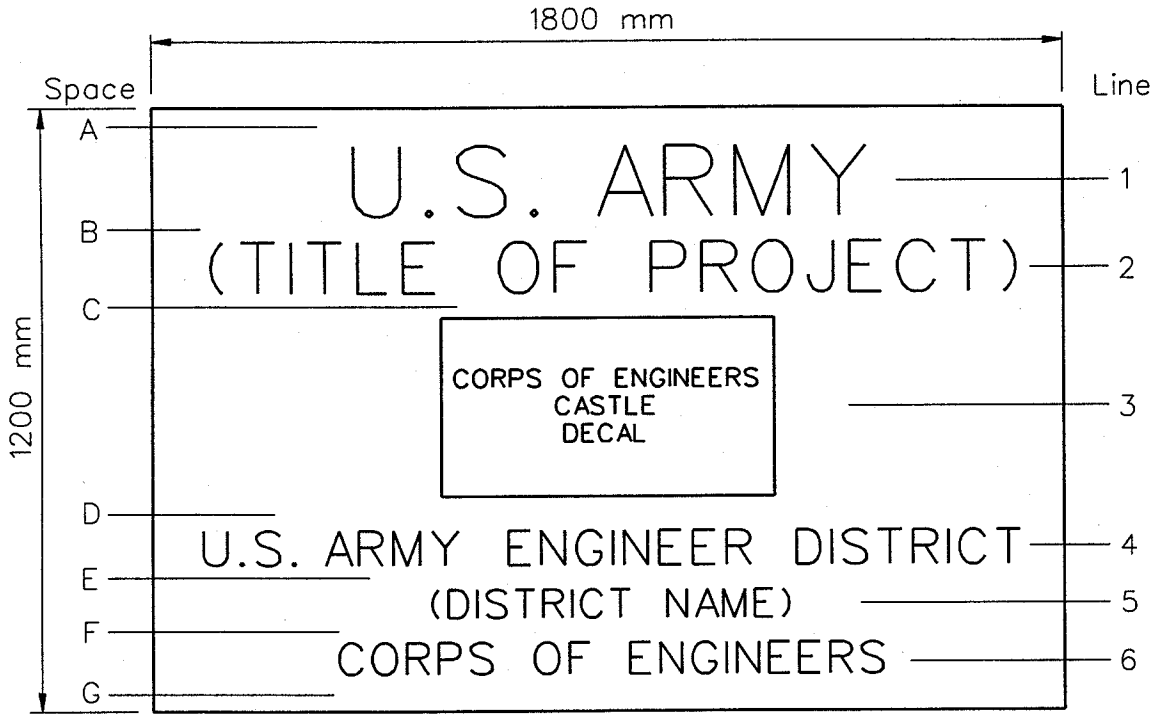
1.24 COORDINATION WITH OTHER CONSTRUCTION

The Contractor shall coordinate work with other construction projects in the vicinity of the project.

PART 2 MATERIALS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --



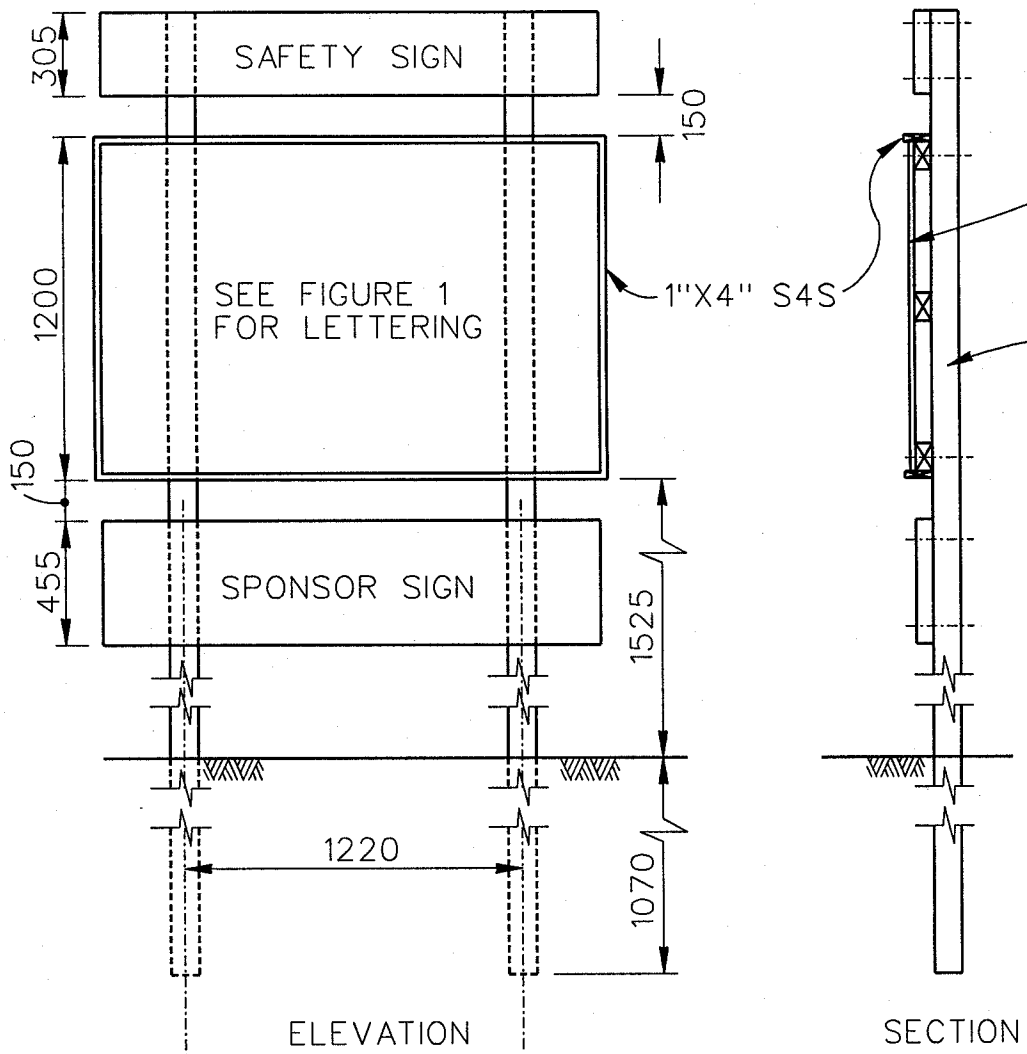
Space	Height	Line	Description	Letter Height	Stroke
A	75				
		1	U.S. ARMY	140	22
B	50				
		2	PROJECT NOMENCLATURE	100	16
C	50				
		3	CORPS OF ENGINEERS CASTLE (DECAL)	345	
D	70				
		4	U.S. ARMY ENGINEER DISTRICT	70	9
E	50				
		5	DISTRICT NAME	60	6
F	50				
		6	CORPS OF ENGINEERS	65	9
G	75				

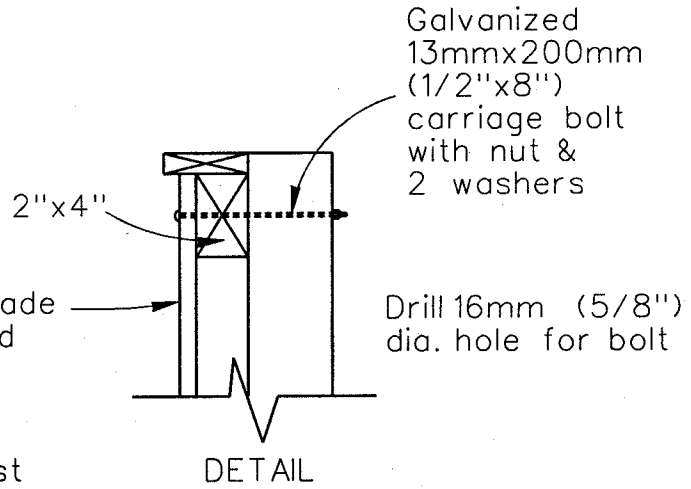
Letter Color -- Black

PROJECT SIGN
(Army-Civil Works)

Figure 1
October 1996

All units are in millimeters.





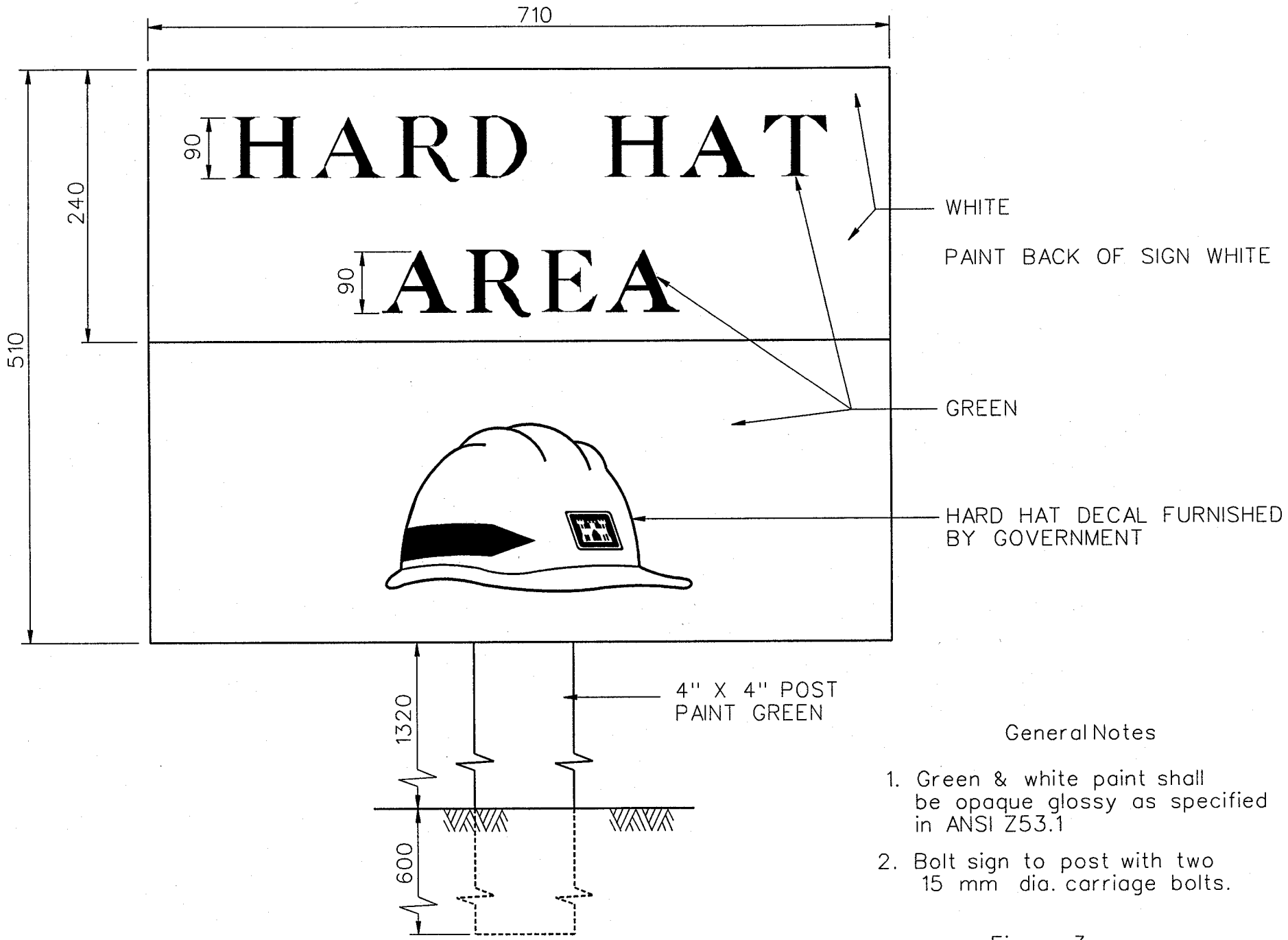
General Notes

1. Lumber to be cut & formed accurately.
2. Secure 1"x4" & plywood with 6d finish nails at not less than 305mm(12") O.C.
3. All exposed nails to be set & holes filled with putty.
4. Sign to be set in good solid ground & backfill carefully tamped into place.
5. Where necessary, posts shall be braced to provide a solid installation.

SIGN DETAILS

Figure 2
October 1996

All units are in millimeters unless otherwise indicated.



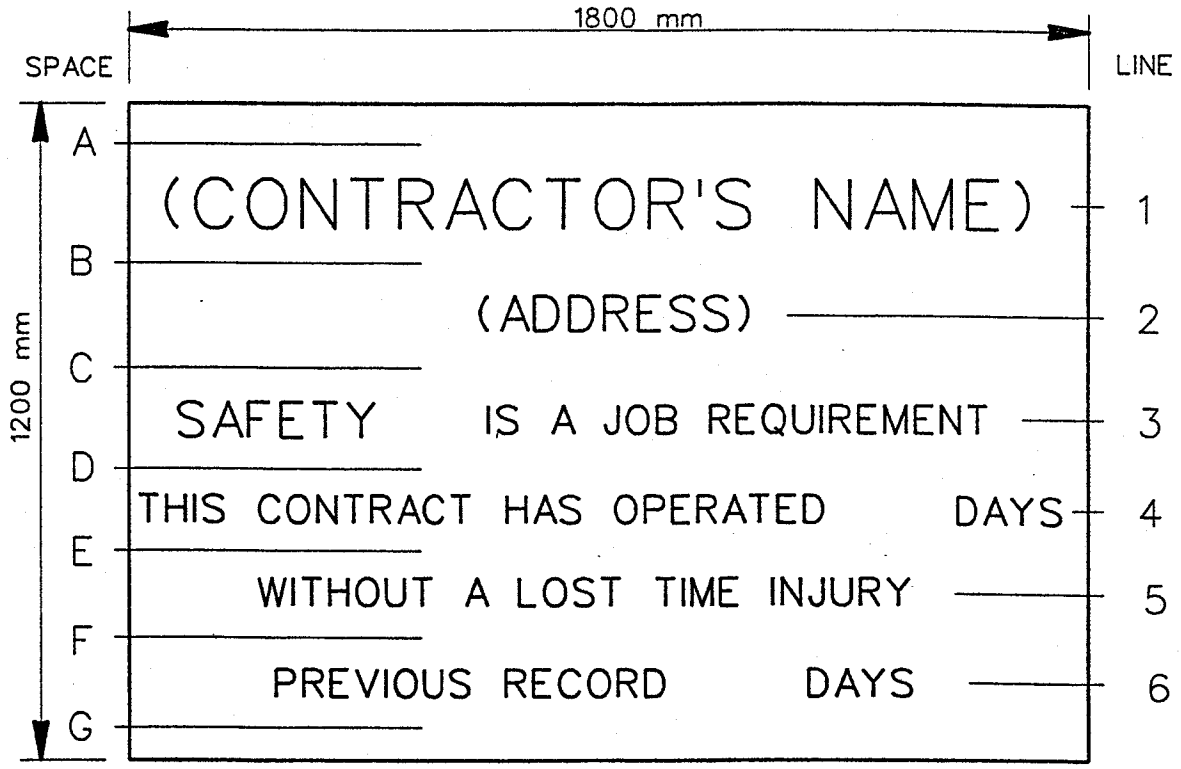
General Notes

1. Green & white paint shall be opaque glossy as specified in ANSI Z53.1
2. Bolt sign to post with two 15 mm dia. carriage bolts.

All units are in millimeters unless otherwise indicated.

Figure 3
October 1996

CORPS OF ENGINEERS U.S. ARMY



SPACE	HEIGHT	LINE	DESCRIPTION	LETTER HEIGHT
A	125			
		1	CONTRATOR'S NAME	125
B	75			
		2	ADDRESS	75
C	150			
		3	SAFETY IS A JOB REQUIREMENT	115 & 75
D	75			
		4	ALL LETTERING	75
E	75			
		5	ALL LETTERING	75
F	75			
		6	ALL LETTERING	75
G	125			

Notes

Lettering shall be black No. 27038 standard 595.
Sign shall be installed in the same manner as the Project Sign.

SAFETY SIGN
STANDARD DETAIL

All units are in millimeters.

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01270

MEASUREMENT AND PAYMENT

02/94

-- End of Section Table of Contents --

SECTION 01270

MEASUREMENT AND PAYMENT
02/94

PART 1 GENERAL

1.1 REFERENCES

None

1.2 SUBMITTALS

None

1.3 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the PRICING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.3.1 Mobilization and Demobilization

a. Payment. Payment will be made for costs associated with mobilization and demobilization, as defined in Special Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

b. Unit of Measure: Job.

1.4 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the PRICING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.4.1 Dredging

a. Payment. Payment will be made for costs associated with dredging, including overdepth dredging, transporting and deposition of dredge

material at designated disposal site(s), and other operations incidental thereto, including hydrographic surveys and water quality control and monitoring.

b. Measurement

The total quantity of dredge material for which payment will be made will be by in-place (quantity) measurement in cubic meters by computing the difference in available material between the pre-dredge survey and the post-dredge survey. Available material is defined as material located within the boundaries of the dredge prism. Specifically, a quantity of available material will be computed between the dredge prism and the bottom surface shown by the soundings of the Government's pre-dredge survey, and a quantity of available material will be computed between the dredge prism and the bottom surface shown by the Government's post-dredge survey. The difference between these two available quantities (pre-dredge and post-dredge) will constitute the quantity of material dredged. Misplaced materials (including any required removal and placement), excessive overdepth dredging and material falling or drawn into the cut from beyond the side slope plane or beyond the limits indicated, will be excluded from the quantities for which payment will be made. The Triangulated Irregular Network (TIN) method will be used for quantity determination. For method of soundings, see SECTION 02020: DREDGING.

c. Unit of Measure: cubic meter

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330

SUBMITTAL PROCEDURES

09/97

-- End of Section Table of Contents --

SECTION 01330

SUBMITTAL PROCEDURES
09/97

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the submittal register as a diskette containing the computerized ENG Form 4288 and instructions on the use of the diskette. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 10 calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 7 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

3.5.1 Procedures

Submittals shall be made to:

Randy Lee
USACE - San Diego Project Office
16885 West Bernardo Drive, Suite 300
San Diego, CA. 92127
Telephone: (858) 674-6765 or 6775 Fax: (858) 674-6781

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Four copies of the submittal will be retained by the Contracting Officer and two copies of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

-- End of Section --

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
Oceanside Harbor Maintenance Dredging

CONTRACTOR

SPECIFICATION SECTION
01200

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION		
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	REMARKS
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
			1.20	Work and Storage Areas Plan		X										X										
			1.13.1	Site Safety Health Plan					X							X										
			1.13.2	Job Hazards Safety Analysis					X							X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
Oceanside Harbor Maintenance Dredging

CONTRACTOR

SPECIFICATION SECTION
01354

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STAT EMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	CONTRACTOR SCHEDULE DATES: APPROVAL NEEDED BY t.	CONTRACTOR SCHEDULE DATES: MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	CONTRACTOR ACTION: SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
			1.5	Environmental Protection Plan					X							X										
			1.3	Secchi Disk Monitoring/Water						X					X											
				(Turbidity) Sampling and Tracking																						

ENG FORM 4288, Jul 96

SPECSINTACT

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
Oceanside Harbor Maintenance Dredging

CONTRACTOR

SPECIFICATION SECTION
01451

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	CONTRACTOR SCHEDULE DATES: APPROVAL NEEDED BY t.	CONTRACTOR SCHEDULE DATES: MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	CONTRACTOR ACTION: SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
			3.12	Project Schedule				X								X										
			3.2.1	Contractor Quality Control (QCP) Plan					X							X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
Oceanside Harbor Maintenance Dredging

CONTRACTOR

SPECIFICATION SECTION
02020

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	CONTRACTOR ACTION: DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			3.2.3	Dredge Dump Disposal Records	X										X											
			3.1	Dredge and Disposal Plan					X							X										
			3.12	Daily Report of Operations						X					X											
			3.7	Sediment Samples								X			X											

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR ☐ FIO ☐ GOV'T. APPROVAL

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)*	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See Instruction no. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE *g.*	VARIATION *(See Instruction No. 6)* *h.*	FOR CE USE CODE *i.*
				SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*			

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated.

_____

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.

2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.

3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.

4. Submittals requiring expeditious handling will be submitted on a separate form.

5. Separate transmittal form will be used for submittals under separate sections of the specifications.

6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".

7. Form is self-transmittal, letter of transmittal is not required.

8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.

9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A -- Approved as submitted.

B -- Approved, except as noted on drawings.

C -- Approved, except as noted on drawings. Refer to attached sheet resubmission required.

D -- Will be returned by separate correspondence.

E -- Disapproved (See attached).

F -- Receipt acknowledged.

FX -- Receipt acknowledged, does not comply as noted with contract requirements.

G -- Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01354

ENVIRONMENTAL PROTECTION FOR CIVIL WORKS

10/95

-- End of Section Table of Contents --

SECTION 01354

ENVIRONMENTAL PROTECTION FOR CIVIL WORKS
10/95

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

CODE OF FEDERAL REGULATIONS (CFR)

36 CFR 800	Properties Discovered During Implementation of an Undertaking
40 CFR 261	Identification and Listing of Hazardous Waste

CORPS OF ENGINEERS (COE)

EM 385-1-1	(1996) Safety and Health Requirements Manual

1.2 DEFINITIONS

Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of plant or animal communities; or degrade the environment from an aesthetic, cultural or historic perspective.

Environmental protection is the prevention/control of pollution and habitat disruption that may occur during construction. The control of environmental pollution and damage requires consideration of land, water, air, biological, noise, cultural and visual resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive materials; and other pollutants.

1.3 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-08 Statements

Environmental Protection Plan; GA.

SD-09 Reports

Secchi Disk Monitoring/Water (Turbidity) Sampling and Tracking; FIO

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor shall comply with all applicable Federal, State, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction.

1.4.1 Protection of Features

This section supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. The Contractor shall prepare a list of features requiring protection under the provisions of the contract clause whether or not they are specifically identified on the drawings as environmental features requiring protection. The Contractor shall protect those environmental features, indicated specifically on the drawings, in spite of interference which their preservation may cause to the Contractor's work under the contract.

1.4.2 Permits

This section supplements the Contractor's responsibility under the contract clause PERMITS AND RESPONSIBILITIES. The Government has not obtained any permits for this project with the exception of the California Coastal Commission and California Regional Water Quality Control Board permits. It is the Contractor's responsibility to obtain all other necessary permits and abide by the conditions set within each document. If there is a conflict among the conditions, the Contractor shall request clarification from the Corps.

1.4.3 Special Environmental Requirements

The Contractor shall comply with the special environmental requirements included at the end of this section. These special environmental requirements are an out-growth of environmental commitments made by the Government during the project development.

1.4.4 Environmental Assessment of Contract Deviations

The Contract specifications have been prepared to comply with the special conditions and mitigation measures of an environmental nature which were established during the planning and development of this project. The Contractor is advised that deviations from the drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, alternate access routes, scheduling delays, unauthorized activities in

designated "no work" areas, etc.) could result in the requirement for the Government to reanalyze the project from an environmental standpoint. Deviations from the construction methods and procedures indicated by the plans and specifications which may have an environmental impact will require a extended review, processing, and approval time by the Government.

The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.5 ENVIRONMENTAL PROTECTION PLAN

Within 20 calendar days of Contract Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Contractor shall incorporate Government comments into the final Environmental Protection Plan within 15 days after receipt of comments from the Government.

Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met.

The plan shall detail the actions which the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. The environmental protection plan shall include, but not be limited to, the following:

1.5.1 List of State and Local Laws and Regulations

The Contractor shall provide as part of the Environmental Protection Plan a list of all State and local environmental laws and regulations which apply to the construction operations under the Contract. Permits obtained by the Contractor shall be attached to, and specific conditions included in the Environmental Protection Plan.

1.5.2 Spill Control Plan

The Contractor shall include as part of the Environmental Protection Plan, a Spill Control Plan. The plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

a. The name of the individual who will be responsible for implementing and supervising the containment and cleanup.

b. Training requirements for Contractor's personnel and methods of accomplishing the training.

c. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

d. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

e. The methods and procedures to be used for expeditious contaminant cleanup.

f. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

1.5.3 Recycling and Waste Minimization Plan

The Contractor shall submit a Recycling and Waste Minimization Plan as a part of the Environmental Protection Plan. The plan shall detail the Contractor's actions to comply with the following recycling and waste minimization requirements:

a. The Contractor shall participate in State and local government sponsored recycling programs to reduce the volume of solid waste materials at the source.

b. The Contractor shall collect glass bottles, aluminum cans, and paper at the job site for recycling.

1.5.4 Contaminant Prevention Plan

As a part of the Environmental Protection Plan, the Contractor shall prepare a contaminant prevention statement identifying potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, water, or ground. The Contractor shall detail provisions to be taken to meet Federal, State, and local laws and regulations regarding the storage and handling of these materials.

1.5.5 Debris Management Plan

As part of the Environmental Protection Plan, the Contractor shall prepare a Debris Management Plan to prevent disposal of solid debris at disposal sites. The Debris Management Plan shall include sources and expected types of debris, debris separation and retrieval methods, and debris disposal methods.

1.5.6 Water Quality Monitoring Plan

The Contractor shall prepare a Water Quality Monitoring Plan which identifies a tracking and reporting program to evaluate water quality changes within the water column and with respect to the extent at which the impact is detected by surface plume migrations. Additional information to be provided in this plan is outlined in Section 3.2.3 Water Sampling.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 INSPECTION REQUIREMENTS/FOLLOW-UP ACTIONS

a. At this time, construction activities are permitted between September 15th and April 1st.

b. The Contractor shall promptly inform the Contracting Officer of Environmental Protection Plan non-compliance activities and proposed actions to be taken to correct such activities. The Contractor shall implement the necessary actions to correct such noncompliance activities promptly. Depending on the nature of the violation, the Contracting Officer may issue an order to stop all or part of the work until satisfactory corrective action is taken. Under such circumstances, the Contracting Officer will not grant time extensions to or reimburse the Contractor for any such suspension.

3.2 PROTECTION OF WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

3.2.1 Regional Water Quality Control Board (RWQCB) Requirements

The RWQCB requirements follow. Contractor shall perform discharge monitoring, inspections, testing, reporting and record keeping as set forth below:

3.2.2 Turbidity Monitoring

The Contractor shall perform Secchi Disk or turbidity meter readings at the dredge site and nearshore disposal location (if nearshore disposal is utilized) daily at locations a thru j as specified below, during each yearly dredging cycle. All data collected at the dredge site (including control measurements) shall be collected at locations within the confines of protective structures (breakwaters and jetties), and within the main harbor area (outside of the Small Craft Harbor and the Del Mar Boat Basin). All data collected at the nearshore disposal site (including control measurements) shall be collected in water depths between -3 and -10 meters Mean Lower Low Water (MLLW). Daily readings shall be performed at the dredge site approximately fifteen (15) minutes after commencement of the

first dredging of the day after sunrise. Daily readings shall be performed at the nearshore disposal site approximately fifteen (15) minutes after commencement of the first nearshore disposal after sunrise. Data shall be collected at the following locations:

a. 30 meters from the dredge in the direction of turbidity plume
b. 75 meters from the dredge in the direction of turbidity plume
c. 150 meters from the dredge in the opposite direction of the turbidity plume
d. Control Measurement #1: 300 to 450 meters from the dredge
e. Control Measurement #2: 300 to 450 meters from the dredge and at least 150 meters from Control Measurement #1.

f. 30 meters south of the nearshore disposal site
g. 75 meters south of the nearshore disposal site
h. 150 meters north of the nearshore disposal site
i. Control Measurement #1. 300 to 450 meters from the nearshore disposal site
j. Control Measurement #2. 300 to 450 meters from the nearshore disposal location and at least 150 meters from Control # 1

Control measurements will represent ambient conditions and shall be taken outside of visible turbidity plumes.

For dredge cycles in which dredge material is being deposited directly onto the beach, turbidity monitoring, in addition to daily sampling of a thru e above, shall be performed at the following locations on a weekly basis:

k. 900 meters updrift of the beach disposal site at 150 meters offshore
l. 450 meters downdrift of the beach disposal site at 150 meters offshore
m. directly offshore of the beach disposal area, in the visual plume

If a turbidity meter is used, the Contractor shall collect one water sample (100 ml minimum) at each monitoring location, and analyze the samples for turbidity in Nephelometric Turbidity Units (NTU) within 12 hours of sampling.

3.2.3 Water Sampling

The Contractor shall collect two (2) water samples (100 ml minimum) at mid-depth within the visible turbidity plume during each dredge cycle. Samples shall be taken monthly at both the dredge area and the nearshore disposal site within the visible turbidity plume and at sites a, b, c, f, g, and h (described above). The Contractor shall analyze all water samples for the following constituents:

total suspended solids (mg/L)
hydrogen sulfide (mg/L)
polar and non-polar oil and grease (mg/L)

Whenever dredge materials are being deposited onto the beach, three replicate water samples shall be taken 30 meters down current of the

discharge point once per week during each dredge cycle and analyzed for total and fecal coliforms. If any water sample is found to contain bacteria in levels that exceed 200/100 ml (Ocean Plan Bacterial Water Contact Standards), the Contracting Officer and the County of San Diego, Department of Environmental Health (Kathy Stone 619-338-2386) shall be notified immediately. The Contractor shall immediately post signs to prohibit body contact with the water and dredged material in all areas affected by contamination. Additional daily sampling shall be conducted within the surf zone at 30, 60, 150, and 300 meters down current of the dredge material disposal point(s) until no bacterial contamination is noted for three consecutive days.

All monitoring shall be conducted according to United States Environmental Protection Agency or California Department of Health Services approved test procedures as described in the current Title 40, Code of Federal Regulations (CFR), Part 136 and 261, or the current California Code of Regulations Title 22, Article 11, as appropriate, unless other test procedures have been specified.

Analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the RWQCB's Executive Officer.

The Contractor shall ensure that the following observations are recorded by the individual performing such operations, during each sampling effort:

a. Name of project
b. Date, location and time of sampling effort.
c. Name of individual performing sampling.
d. Speed and direction of current.
e. Tidal stage.
f. General weather conditions and wind velocity.
g. Appearance of trash, floatable material, grease, oil slick or other objectionable materials.
h. Discoloration and extent of visible turbidity plumes.
i. Any distinguishable odors.
j. Quantity of material dredged the previous day.
k. Cumulative total amount of material dredged to date.
l. Date of analyses.
m. Name of individual performing analyses.
n. Analytical techniques and/or methods to be used to analyze and interpret data.
o. Results.
p. Map/delineate daily aerial extent of turbidity plume by visual observations at both dredge and disposal sites.

The Contractor shall, upon the availability of test results or completion of daily monitoring, submit that same day all test results along with secchi disk measurements and turbidity plume maps to the Contracting Officer Representative, and to the Corp's environmental coordinator, Russ Kaiser, phone # 213-452-3293, fax 213-452-4196. The Contractor shall keep a copy of all test results, secchi disk measurements, observations, calibration and maintenance records in a file at the job site available for inspection.

3.2.4 Mitigation Measures

If directed by the Contracting Officer, the Contractor shall modify operations to reduce the turbidity plume caused by dredge and disposal operations. The Contractor may be required to use a silt curtain or other means, if necessary, to localize the plume. Modifications may include the use of a floating debris boom, with a skirt not less than 0.45 meters deep. This boom shall be placed in a manner that will prevent spills, floating objects, and suspended sediments from drifting away from the site. Modifications may also include slowing or the temporary stoppage of operations until directed by the Contracting Officer to resume normal operations.

All dredging and disposal activities will remain within the boundaries specified in the plans. There will be no dumping of material outside of the project area or within any adjacent aquatic community.

3.2.5 Commitments

Project features shall not interfere with tidal circulation and/or fresh water inflows into and through the mouth of the San Luis Rey River.

3.2.6 Floating Debris

During the performance of work, the Contractor shall institute and enforce procedures to prevent spills and floating debris from fouling the local waters and beach. Should these procedures fail, the Contractor shall promptly clean up all spills and debris. At the end of each work shift, loose materials on adjoining structures and debris in the water and on the beach shall be removed by the Contractor and disposed of off site.

3.2.7 Other Discharges

Should the Contractor lose, dump, throw overboard, sink or misplace material, plant, machinery appliance, or cause pollution or the waters, the Contractor shall give immediate notice to the Contracting Officer and, if required shall boom, buoy or otherwise mark the location of the incident until the obstruction or pollution problem is removed. Should the Contractor refuse, neglect or delay compliance with these requirements, the necessary removal and clean up may be deducted from the monies due or to become due to the Contractor.

3.3 PROTECTION OF FISH AND WILDLIFE RESOURCES

The Contractor shall not harass, kill, collect, or intentionally harm any species of wildlife, fish or invertebrate.

The Contractor shall keep construction activities under surveillance, management and control to minimize interference with, disturbance to and damage of fish and wildlife (endangered species and their habitat).

3.3.1 Incidental Take of Wildlife

The Contractor shall report any incidental take (dead or injured species) immediately to the Contracting Officer. The Contracting Officer shall consult with U.S. Fish and Wildlife Service immediately in the event of incidental take in the form of direct mortality through accidental death of a California least tern, or California brown pelican. Operations may be stopped if it is suspected that the impact of the taking causes an irreversible and adverse impact on the species.

3.4 PROTECTION OF AIR RESOURCES

Special management techniques as set out below shall be implemented to control air pollution by the construction activities. These techniques supplement the requirements of Federal, State, and local laws and regulations; and the safety requirements under this Contract. If any of the following techniques conflict with the requirements of Federal, State, or local laws or regulations, or safety requirements under this contract, then those requirements shall be followed in lieu of the following.

3.4.1 Air Quality Management District

All activities, equipment, processes, and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the San Diego Air Pollution Control District (SDAPCD) permit requirements and all Federal emission and performance laws and standards. Point of contact for the San Diego Air Pollution Control District is Mr. Ernie Davis, (858) 694-3930. The Contractor should schedule suitable time to acquire appropriate SDAPCD permits, waivers or credits.

Construction equipment shall be properly maintained to minimize release of diesel and hydrocarbons effluent. The Contractor shall follow all air quality standards.

3.4.2 Particulates

The Contractor shall:

a. Control airborne particulates, including dust particles, as work proceeds and whenever particulates create a hazard or nuisance.

b. Maintain all excavations, stockpiles, disposal sites, and all other work areas free from particulates which may create exceedances of local and regional air pollution standards.

3.4.3 Odors

The Contractor shall control odors as work proceeds and whenever odors create a hazard or nuisance.

3.4.4 Other Emission Commitments

The Contractor shall:

a. Use reformulated diesel fuel on all diesel powered equipment and vessels based on the following approximate specifications: Cetane number of 48.6; Sulfur content less than 0.05 percent by weight; Aromatic content less than 34.7 percent; Olefins content less than 2.1 percent; and Saturate content greater than 63.2 percent.

b. Use clean, low sulphur fuel in dredges and/or catalytic converters.

c. Use distillate oil in maneuvering vessels and clean fuels for on dock equipment.

d. Properly tune and maintain all construction equipment. Retard injection timing of diesel-powered equipment by 2 degrees.

e. Control hydrocarbon and carbon monoxide emissions from equipment to meet Federal and State allowable limits at all times.

f. Encourage construction workers to carpool.

g. Discontinue construction activities during a Stage 2 Smog Alert.

3.5 NOISE

a. The Contractor shall designate a disturbance coordinator, with his/her name and telephone number clearly posted at the construction site, responsible for responding to noise complaints, determining noise source/cause, and implementing measures to mitigate noise impact.

The disturbance coordinator shall maintain a log of complaints with the following information:
- Name of caller
- Phone # and address of caller
- Date and time of call
- Callers complaint
- Response to caller

b. The Contractor shall use properly operating mufflers on all internal combustion powered equipment and keep them in a proper state of tune to alleviate back-fires and use protective shrouds on external engines.

c. The Contractor shall locate all portable and support equipment as far away as possible from sensitive areas.

d. The Contractor shall use, where feasible, electricity from the local power grid to avoid use of portable generators.

3.6 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

3.6.1 Known Historic, Archaeological, and Cultural Resources

There are no known historic, archaeological, and cultural resources at the project site.

3.6.2 Discovered Historic, Archaeological or Cultural Resources

If during construction activities, items are observed that may have historic or archaeological value (e.g., shipwrecks, Native American human remains or associated objects), such observations shall be reported immediately to the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall prevent his employees from trespassing on, removing, or otherwise disturbing such resources.

3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed pollution control facilities and portable pollution control devices for the duration of the Contract or for the length of time construction activities create the particular pollutant.

3.8 SPECIAL ENVIRONMENTAL PROTECTION REQUIREMENTS

3.8.1 U.S. Department of Agriculture (USDA) Quarantined Considerations

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that barnacles, mussels, vegetation, and egg deposits from plant pests are not present. The Contractor shall consult with the USDA Plant Protection and Quarantine (USDA - PPQ) jurisdictional office for additional cleaning requirements that may be necessary.

3.8.2 Soil Disposal Areas on Government Property

Material disposal on Government property shall be disposed only in those areas designated on the contract drawings. Hazardous, toxic, and radiological wastes (HTRW) shall not be disposed of on Government property. Disposal operations shall be managed and controlled to prevent erosion of soil or sediment from entering nearby waters or wetlands. Disposal operations shall be developed and managed in accordance with the grading plan shown on the drawings or as approved by the Contracting Officer.

3.8.3 Disposal of Solid Wastes

Solid waste is rubbish, debris, waste materials, garbage, and other discarded solid materials (including trash and debris dredged from the work

area, but excluding clearing debris and hazardous waste as defined in following paragraphs). Solid waste shall be placed in containers and disposed on a regular schedule. All handling and disposal shall be conducted in such a way as to prevent spillage and contamination. The Contractor shall transport all solid waste off Government property in compliance with Federal, State, and local requirements.

3.8.4 Clearing Debris

Clearing debris is trees, tree stumps, tree trimmings, and shrubs, and leaves, vegetative matter, excavated organic materials (e.g. vegetative matter that is easily separable from the dredged sediment), and demolition products (e.g., brick, concrete, glass, and metals).

a. The Contractor shall collect trees, tree stumps, tree trimmings, shrubs, leaves, and other vegetative matter; and shall transport from Government property for proper disposal in compliance with Federal, State, and local requirements. The Contractor shall segregate the matter where appropriate for proper disposal. Untreated and unpainted scrap lumber may be disposed of with this debris where appropriate.

b. Demolition products shall be transported from Government property for proper disposal in compliance with Federal, State, and local requirements.

3.8.5 Disposal of Contractor Generated Hazardous Wastes

Hazardous wastes are hazardous substances as defined in 40 CFR 261, or as defined by applicable State and local regulations. Hazardous waste generated by construction activities shall be removed from the work area and be disposed in compliance with Federal, State, and local requirements. The Contractor shall segregate hazardous waste from other materials and wastes, and shall protect it from the weather by placing it in a safe covered location; precautionary measures against accidental spillage such as berming or other appropriate measures shall be taken. Hazardous waste shall be removed from Government property within 60 days. Hazardous waste shall not be dumped onto the ground, into storm sewers or open water courses, or into the sanitary sewer system.

3.8.6 Fuels and Lubricants

Fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants and waste oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with Federal, State, and local laws and regulations.

3.9 TRAINING OF CONTRACTOR PERSONNEL

Contractor personnel shall be trained in environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel monthly.

The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, installation and care of facilities (vegetative covers, etc.), and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall also be discussed. Other items to be discussed shall include recognition and protection of archaeologic sites and artifacts.

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01415

METRIC MEASUREMENTS

03/97

-- End of Section Table of Contents --

SECTION 01415

METRIC MEASUREMENTS
03/97

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 380	(1993) Practice for Use of the International System of Units (SI)
ASTM E 621	(1994) Practice for Use of Metric (SI) Units in Building Design and Construction

1.2 GENERAL

This project includes metric units of measurements. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960. A number of circumstances require that both metric SI units and English inch-pound (I-P) units be included in a section of the specifications. When both metric and I-P measurements are included, the section may contain measurements for products that are manufactured to I-P dimensions and then expressed in mathematically converted metric value (soft metric) or, it may contain measurements for products that are manufactured to an industry recognized rounded metric (hard metric) dimensions but are allowed to be substituted by I-P products to comply with the law. Dual measurements are also included to indicate industry and/or Government standards, test values or other controlling factors, such as the code requirements where I-P values are needed for clarity or to trace back to the referenced standards, test values or codes.

1.3 USE OF MEASUREMENTS

Measurements shall be either in SI or I-P units as indicated, except for soft metric measurements or as otherwise authorized. When only SI or I-P measurements are specified for a product, the product shall be procured in the specified units (SI or I-P) unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one system of units for another and for the final assembly and performance of the specified work and/or products.

1.3.1 Hard Metric

A hard metric measurement is indicated by an SI value with no expressed correlation to an I-P value, i.e., where an SI value is not an exact mathematical conversion of an I-P value, such as the use of 100 mm in lieu of 4 inches. Hard metric measurements are often used for field data such as distance from one point to another or distance above the floor. Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

1.3.2 Soft Metric

a. A soft metric measurement is indicated by an SI value which is a mathematical conversion of the I-P value shown in parentheses (e.g. 38.1 mm (1-1/2 inches)). Soft metric measurements are used for measurements pertaining to products, test values, and other situations where the I-P units are the standard for manufacture, verification, or other controlling factor. The I-P value shall govern while the metric measurement is provided for information.

b. A soft metric measurement is also indicated for products that are manufactured in industry designated metric dimensions but are required by law to allow substitute I-P products. These measurements are indicated by a manufacturing hard metric product dimension followed by the substitute I-P equivalent value in parentheses (e.g., 190 x 190 x 390 mm (7-5/8 x 7-5/8 x 15-5/8 inches)).

1.3.3 Neutral

A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

1.4 COORDINATION

Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

1.5 RELATIONSHIP TO SUBMITTALS

Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM E 380 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01451

CONTRACTOR QUALITY CONTROL

04/97

SECTION 01451

CONTRACTOR QUALITY CONTROL
04/97

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740	(1996) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329	(1995b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Schedules

Project Schedule; GA.

SD-08 Statements

Contractor Quality Control (QCP) Plan; GA.

1.3 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the PRICING SCHEDULE.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "INSPECTION OF CONSTRUCTION." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than 15 days after receipt of notice to proceed, the Contractor Quality Control (QCP) Plan proposed to implement the requirements of the Contract Clause titled "INSPECTION OF CONSTRUCTION." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 15 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task that is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the

Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 7 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 5 years construction experience on construction similar to this contract. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized

personnel to assist the CQC System Manager for the following areas: civil and dredging. These individuals may be employees of the prime or subcontractor; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan.

Experience Matrix

	Area	Qualifications
a.	Civil	Graduate Civil Engineer with 2 years experience in the type of work being performed on this project or technician with 5 years related experience
b.	Dredging	Experienced engineer or technician with 10 years of marine dredging experience

3.4.4 Additional Requirement

In addition to the above experience and education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered, contact U.S. Army Corps of Engineers, Los Angeles District, Emmauel Molina, at (213) 452-3382 for information.

3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS

Submittals shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable

feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

a. A review of each paragraph of applicable specifications.

b. A review of the contract drawings.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. Review of provisions that have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. A review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. Discussion of the initial control phase.

k. The Government shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verify adequacy of controls to ensure full contract compliance.

Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, onsite production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product that conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.
b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of $675.00 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Samples of materials for test verification and acceptance testing will be tested at a commercial laboratory approved by the Contracting Officer. All cost for transporting of samples will be borne by the Contractor.

3.8 COMPLETION INSPECTION

At the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC Representative shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC Representative or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Government. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate dates.

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals reviewed, with contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or specs.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.11 GOVERNMENT RESIDENT MANAGEMENT SYSTEM

The use of the Government Resident Management System for Contractor quality control is optional for this contract. If the Contractor chooses to utilize this system, the CQC Programming Module (a computerized executable file which is DOS based and operates on a minimum of 80386 IBM compatible computers) will be furnished by the Government.

3.12 PROJECT SCHEDULE

Pursuant to the Contract Clause SCHEDULES FOR CONSTRUCTION CONTRACTS (52.236-15), the Contractor shall prepare and submit to the Contracting Officer for approval three copies of a practicable Project Schedule showing the order in which he proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work. A progress report, showing the progress of the work in relation to the project schedule, shall be submitted to the Contracting Officer not less than weekly. The project schedule shall be revised and resubmitted as needed, or whenever the actual progress is substantially different than the proposed schedule.

-- End of Section --

CONSTRUCTION QUALITY CONTROL REPORT
(SAMPLE)

CONTRACT NO. _____

HARBOR & PROJECT _____ CONTRACTOR _____

DATE _____ WEATHER _____ DREDGING CYCLE: _____

SEA CONDITION _____ SWELL/DIRECTION _____ TURBIDITY _____

PERIOD COVERED _____ DREDGE _____ MATERIAL _____

NO. & LOCATION OF DREDGE SAMPLES TAKEN: _____

QUANTITY

This period total _____

This period per pump hour _____

To date total _____

CUT

Location _____

Cut No. _____ Sta. _____ To Sta. _____

Avg. Width_____ Depth before _____

Advance _____ Depth after _____

Avg. Bank _____

FILL PIPELINE

LOCATION	QUANTITY TO DATE

Floating _____ Total _____

Submerged _____ Avg. Total _____

Shore _____

LABOR DREDGE INFORMATION

	# of Crew	Leverman
Shift #1	_____	_____
Shift #2	_____	_____
Shift #3	_____	_____

*Pump Speed (RPM) _____

*Cutter RPM _____

*Cutter type _____

*Runner Diameter _____

*Applicable to cutter suction/suction dredging only.

DOWN TIME

TIME DOWN	TIME RESTART	REASONS	TIME
	TOTAL		

EQUIPMENT _____

DAILY SOUNDINGS

	VERTICAL	HORIZONTAL
Minimum	_____	_____
Maximum	_____	_____
Average	_____	_____

REMARKS _____

SUBMITTED BY: _____

SIGNED: _____

HYDRAULIC
DAILY REPORT

DREDGE _____ REPORT NO. _____

WEATHER _____ CONTRACT NO. _____

WIND _____ DATE _____

SEA _____ TIDE GAGE # _____

DREDGING CYCLE: _____ HORIZONTAL POS. _____

W O R K L O C A T I O N S K E T C H
(Include Dredge Advances, Stationing, & Channel Widths)

_____

_____

_____

ACTIVITY

Non-Effective Time (hours)	Today	To Date
1. Mob/demob		
2. New area move		
3. Traffic		
4. Weather		
5. Relocate Pipe		
6. Repair Pipe		
7. Handling Anchors		
8. Clearing Pump		
9. Clearing Pipe		
10. Clearing Cutter		
11. Clearing Suction Head		
12. Booster Offline		
13. Dredge Repair		
14. Survey Delay		
15. Other (see remarks)		
TOTALS		

Effective Time (hours)		Today	To Date
1. Dredge/booster			
2. Other (see remarks)			
TOTALS			
Production	**Unit**	**Today**	**To Date**
1. Avg. cut width	ft.		
2. Avg. cut depth	ft.		
3. Advance	ft.		
4. Pipe Change	ft.		

REMARKS

OPERATOR'S LOG FOR
Dredging/Booster (in line)

DREDGING CYCLE: _____

ACTIVITY	TIME START	TIME STOP	DIFF.	ACTIVITY	TIME START	TIME STOP	DIFF.
TOTAL HOURS				TOTAL HOURS			

REMARKS

CLAMSHELL
DAILY REPORT

DREDGE _____ REPORT NO. _____

WEATHER _____ CONTRACT NO. _____

WIND _____ DATE _____

SEA _____ TIDE GAGE # _____

DREDGING CYCLE: _____ HORIZONTAL POS. _____

W O R K L O C A T I O N S K E T C H
(Include Dredge Advances, Stationing, & Channel Widths)

_____

_____

_____

A C T I V I T Y

Non-Effective Time (hours)	Today	To Date
1. Mob/demob		
2. New area move		
3. Traffic		
4. Weather		
5. Scow Change		
6. Scow Wind		
7. Scow Tug		
8. Scow Repair		
9. Dredge Maintenance		
10. Dredge Repair		
11. Survey Delay		
12. Other(see remarks)		
Non-Effective Totals		

Effective Time (hours)		Today	To Date
1. Dredging			
2. Other (see remarks)			
Effective Totals			
Production	Unit	Today	To Date
1. Avg. cut width	ft.		
2. Avg. cut depth	ft.		
3. Area	sq.ft.		
4. Travel time	hrs.		

S C O W S

ID	START LOAD TIME	STOP LOAD TIME	TOTAL LOAD HRS	TODAY CY	TO DATE CY
	TOTALS				

DREDGING CYCLE: _____ DATE: _____

Hopper Dredge Daily Record						Location							DREDGE		HOPPER CAPACITY		
LOAD NO.	CUT NO.	PUMPS		MINUTES		STATIONS	TOTAL	AT DUMP			DUMP LOCATION		SETTLED SOLIDS	YARDAGE METER READING	MATE:		
		START	STOP	PUMPING	TURNING	FROM -------- TO	LENGTH OF LOAD	ARRIVED	LEFT	DEPTH	NORTHING	EASTING					
1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	REMARKS:	

TOTALS																	
AVERAGES																	

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